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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,830	03/23/2005	Soon Jo Lee	9988.217.00	3733

7590 03/10/2009
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EXAMINER

HECKERT, JASON MARK

ART UNIT	PAPER NUMBER
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1792

MAIL DATE	DELIVERY MODE
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03/10/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/528,830	Applicant(s) LEE ET AL.	
	Examiner JASON HECKERT	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/22/08, 1/5/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

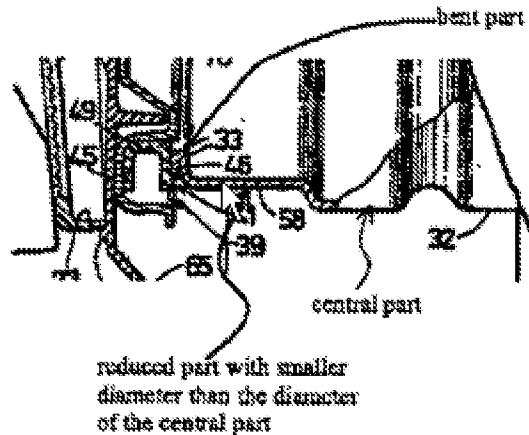
A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/5/09 has been entered.

Response to Arguments

1. Applicant's arguments filed 1/5/09 have been fully considered but they are not persuasive. Applicant has amended the claims to include the limitation that "the first diameter is not expanded." This limitation points to the process used to create the product, not the product itself.
2. Examiner feels that process used does not render the drum patentable considering the prior art discloses a drum that possesses the same structures as recited in claim 1. As admitted by the applicant, the prior art of Martinsson is silent to whether the sheet metal processing involves expansion or pressing. However, Martinsson remains relevant prior art considering the teaching of the claimed structure. Therefore, the rejections are maintained.

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3. Additionally, examiner presents new art of Johnson, US Patent 4,854,054. The following figure shows features of the prior art that are analogous to the instant application.



4.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 and 3, 6-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Martinsson OR Johnson in view of Hoffman. In figure 5, Martinsson depicts a cylindrical drum 12 made of stainless steel having reduced parts at opposite ends of the cylindrical body. A folded edge, or bent part, exists on the reduced part as shown below.



7.

8. The reduced part has a continually reduced diameter. Any part of the reduced part can read on "connection part" as it is a very broad limitation. Johnson also shows a drum comprising

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first and second diameters, with a bent portion (see figure 1). Hoffman discloses the use of hems in sheet metal forming (col. 1 lines 1-40 and figures 4-7). It would have been obvious at the time of the invention to modify Martinsson OR Johnson and include folds on the edges, as disclosed by Hoffman, in order to prevent weak and dangerous edges in the metal. The examiner considers the phrase, "wherein the first diameter is not expanded;" to be a process of making the claimed product. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe* 777 F.2d 695, 698, 227 USPQ 964,966 (Fed Cir. 1985) "We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or section 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith." *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972). Martinsson and Johnson disclose the structural features of the product claimed, and the process of expansion is not considered to be a patentably distinguishable feature.

9. In regards to claims 6-10, changes in shape or form have been held to be obvious. *In re Dailey* 149 USPQ 47, 50 (CCPA 1966). Additionally, a change of size is generally recognized as being within the ordinary level of skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955). It

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is well settled that determination of optimum values of cause effective variables, such as these dimensions, is within the skill of one practicing the art. *In re Boesch*, 205 USPQ 215 (CCPA 1980). It has been held that where the general conditions of the claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art.

10. The claimed materials of 11-20 were known at the time of invention to be substitutes for steel and other metals and the combinations would have yielded predictable results to one of ordinary skill in the art.

11. Claims 2, 4-5, 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Martinsson OR Johnson in view Hoffman and further in view of Riegel. Martinsson discloses that joint pressing (note item 67) and welding (col. 1 line 20) are common in washing machine construction. Furthermore, it is known in the art to press and weld drums during construction. Riegel discloses a drum with a butt welded seam and bead portions formed in the body portion (figure 10). It would have been obvious at the time of invention to modify Martinsson OR Johnson in view of Hoffman, as stated above, and either use welding techniques or machine pressing, as disclosed by Riegel, as these are well known methods of drum construction.

12. Claim 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Martinsson OR Johnson in view of Hoffman and further in view of Barrat et al. Barrat discloses using an enamel to coat a drum to prevent erosion due to detergent. It would have been obvious at the time of invention to modify Martinsson OR Johnson in view of Hoffman, as stated above, and paint the drum as disclosed by Barrat, to prevent erosion.

13. Claim 22, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martinsson OR Johnson in view of Hoffman and further in view of Boussetta et al. Martinsson does not

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disclose dampening bands. Boussetta discloses using metal bands 34 on a drum to reduce vibrations. It would have been obvious at the time of the invention to modify Martinsson OR Johnson in view of Hoffman, as stated above, and further include bands, as disclosed by Boussetta, to reduce vibration.

14. Claim 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Martinsson OR Johnson in view of Hoffman in view of Boussetta and further in view of Niwa et al. Boussetta discloses a metal band. Niwa discloses a vibration dampening element comprising rubber (see abstract). It would have been obvious at the time of the invention to modify Boussetta and include rubber on the dampener, as disclosed by Niwa, to further reduce vibrations.

15. Claim 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martinsson OR Johnson in view of Hoffman in view of Boussetta et al. and alternatively in view of Riegel. Martinsson also does not disclose beads. It appears as if the applicant's beads are grooves in the drum. Boussetta discloses struts or webs 30 defining a groove, which appears to be the same as the applicant's bead. The claimed elements were known in the prior art and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

16. Although examiner believes webs 30 to read on the applicant's beads, for the sake of argument, examiner presents Riegel, as discussed above, as a reference obviating butt welding and beads. Riegel discloses a drum with a butt welded seam and bead portions formed in the body portion for reinforcing the strength of the body (figure 10). It would have been obvious at the time of invention to modify Martinsson OR Johnson in view of Hoffman and Boussetta, and

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either use welding techniques or machine pressing, as disclosed by Riegel, as these are well known methods of drum construction.

17. Claim 1, 3, 22-24 rejected under 35 U.S.C. 103(a) as being unpatentable over Yoon in view of Martinsson or Hoffman. Yoon discloses a drum with a cylindrical part, reduced parts, vibration reducing bands 40, and beads 32. Yoon does not disclose bent parts. Martinsson discloses a folded edge, or bent part, existing on a reduced part. Hoffman discloses that hemming edges is well known in sheet metal processing. The claimed elements were known in the prior art and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. The process used to make the drum is not given patentable weight.

18. Claims 2, 4-5, 25-28 rejected under 35 U.S.C. 103(a) as being unpatentable over Yoon in view of Martinsson or Hoffman, and further in view of Riegel. The combination of Yoon in view of Martinsson or Hoffman discloses all of the structural components of the applicant's invention. However, said prior art is silent as to the methods of drum construction. Martinson discloses that joint pressing (note item 67) and welding (col. 1 line 20) are common in washing machine construction. Furthermore, it is known in the art to press and weld drums during construction. Riegel discloses a drum with a butt welded seam and bead portions formed in the body portion (figure 10). It would have been obvious at the time of the invention to modify Yoon in view of Martinsson or Hoffman and include a hemmed edge, as stated above, and further utilize pressing or welding in the construction of the drum as is known in the art.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HECKERT whose telephone number is (571)272-2702. The examiner can normally be reached on Mon. to Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art Unit
1792

JMH